



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/550,555

10/25/2005

Fredericus Johannes Petrus Henricus Brouns

7393/84401

1893

42798 7590 04/21/2008  
FITCH, EVEN, TABIN & FLANNERY  
P. O. BOX 18415  
WASHINGTON, DC 20036

EXAMINER

DEES, NIKKI H

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

04/21/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/550,555	<b>Applicant(s)</b> BROUNS ET AL.	
	<b>Examiner</b> Nikki H. Dees	<b>Art Unit</b> 1794	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____.                                     |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>23 September 2005</u> .                                       | 6) <input type="checkbox"/> Other: _____.                         |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 21 objected to because of the following informalities: change "moth" to month". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 21-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely

Art Unit: 1794

exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 21 recites the broad recitation at least one month, and the claim also recites preferably at least 3 months which is the narrower statement of the range/limitation.

5. Claim 22 provides for the use of a dry composition comprising isomaltulose and trehalose, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

6. Claim 23 provides for the use of trehalose and isomaltulose for preserving osmolality of beverages, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

7. Claim 24 provides for the use of trehalose and isomaltulose to increase the storage stability of beverages, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

***Claim Rejections - 35 USC § 101***

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 22-24 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1, 3-12, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Chaen et al. (6,432,470).

11. Chaen et al. teach a blend comprising trehalose, sucrose and other disaccharides including palatinose (isomaltulose) (col. 2 lines 51-60). The composition

Art Unit: 1794

may be used as a solid or a liquid (col. 3 lines 4-6). A blend is taught wherein the intense sweetener aspartame is included (Example B-1). These teachings anticipate Applicant's claims 1 and 3-6.

12. Chaen et al. teach their composition in a number of food and beverage products at an amount of at least 30 % dry solids basis of the product. Comestibles include confections, instant beverages, infant food, therapeutic foods, soft drinks, and beverages with supplemental nutrients (col. 3 lines 14-39). These teachings anticipate Applicant's claims 7-10.

13. The foodstuffs and beverages may further comprise nutrients, antioxidants and other additives in appropriate amounts (col. 3 lines 62-67). These teachings anticipate Applicant's claim 11.

14. Regarding claim 12, Chaen et al. teach that their composition may comprise trehalose, sucrose, and other mono- and disaccharides, as well as polyols (col. 2 lines 58-65).

15. Regarding claim 22, Chaen et al. teach their dry composition in comestibles (col. 3 lines 48-53).

### ***Claim Rejections - 35 USC § 103***

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1794

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chaen et al. (6,432,470).

18. Chaen et al. teach a composition comprising trehalose and isomaltulose as detailed above.

19. They are silent as to the ratio of trehalose to isomaltulose to be contained in the composition.

20. One of ordinary skill in the art at the time the invention was made would have been able to vary the amounts of trehalose and isomaltulose in the invention of Chaen et al. in order to arrive at the invention as claimed by Applicants as the range of ratios claimed is very broad. This would have required no more than routine experimentation for the artisan, and there would have been a reasonable expectation that a composition with the desired sweetening intensity would be obtained.

21. Claims 13-21, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaen et al. (6,432,470) in view of Kampinga et al. (6,455,511).

22. Chaen et al. teach a composition comprising trehalose, isomaltulose and sucrose, as well as polyols and intense sweeteners, for use in beverages, including nutritional beverages, as detailed above.

23. Chaen et al. are silent as to the amount of dry substance of the beverage is their composition comprising trehalose and isomaltulose.

Art Unit: 1794

24. Kampinga et al. teach a beverage comprising trehalose. It may also comprise additional mono- and disaccharides, including fructose and sucrose, to increase the osmolarity. The beverage may be produced to provide an isotonic beverage (col. 4 lines 19-38).

25. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized the sweetening composition comprising trehalose and isomaltulose as taught by Chaen et al. in a sports-beverage as taught by Kampinga et al. in order to utilize the sweetening optimization characteristics of trehalose while at the same time providing a beverage with the desired stability characteristics.

Isomaltulose is known to be a disaccharide and as such would be considered an obvious choice to provide in combination with trehalose for a sweetening composition.

26. Regarding the amount of dry substance of the beverage that is the blend of isomaltulose and trehalose, Kampinga et al. teach the dry portion of their beverages as comprising primarily trehalose. One of ordinary skill, employing a composition such as that taught by Chaen et al. in the beverages of Kampinga et al. produce a beverage wherein the dry substance of the beverage would be composed of greater than 80% trehalose, sucrose, isomaltulose and other polyols and/or intense sweeteners. This would not require undue experimentation on the part of the artisan, and there would be a reasonable expectation that the resultant beverage would possess optimal sweetening characteristics.

27. Regarding claims 18, 21 and 24, Kampinga et al. teach that their beverages comprising trehalose have a nearly indefinite shelf-life (col. 5 lines 31-35). While they



Art Unit: 1794

do not specifically state that the osmolality of the solution is preserved, one would have a reasonable expectation that if the solution were resistant to contamination, the osmolality of the solution would remain stable over time.

28. Claims 1-2, 5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshio et al. (JP 62-257346 English Abstract).

29. Yoshio et al. teach a sugar mixture comprising about 60 to 80 wt % palatinose (isomaltulose) and about 10 to 20 wt % trehalose. The mixture is used to prepare a confectionary having low cariogenicity.

30. Yoshio et al. do not specifically speak to a dry mixture of trehalose and isomaltulose. However, it would have been obvious to one of ordinary skill that a mixture of sugars that are provided in a liquid could also be provided initially as a dry mixture to which a liquid was added. The selection of any order of mixing ingredients is *prima facie* obvious over the prior art.

### ***Conclusion***

31. The examiner notes the presence of the X reference KR 355 846 on the international search report. This reference provides for a mixture of trehalose and palatinose in a liquid form. The abstract does not teach the mixture in a dry form, nor is there any teaching of the mixture in comestibles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikki H. Dees whose telephone number is (571) 270-3435. The examiner can normally be reached on Monday-Friday 7:30-5:00 EST (first Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nikki H. Dees  
Examiner  
Art Unit 1794

/Carol Chaney/

Supervisory Patent Examiner, Art Unit 1794